

generating a control signal which sets an operating point of said modulator by comparing said adjustable reference signal and said spectral distribution signal.

2. (Amended) The method as claimed in claim 1, further comprising the step of separating a measuring signal which is fed to said frequency discriminator from said amplitude-modulated optical signal.

3. (Amended) The method as claimed in claim 1, further comprising the steps of:

determining said spectral distribution signal at a start of a transmission path; and

setting said reference signal based on properties of said transmission path.

4. (Amended) The method as claimed in claim 1, further comprising the steps of:

determining said spectral distribution signal at a receiving end; and transmitting said spectral distribution signal or a control signal generated therefrom to said modulator provided at a transmitting end.

5. (Amended) The method as claimed in claim 1, wherein said control signal is obtained during periodically occurring time windows.

6. (Amended) An arrangement for optimizing an amplitude-modulated optical signal, comprising:

a light source;

a modulator having an output, said modulator being fed an optical signal from said light source and a digital signal for amplitude modulation;

a frequency discriminator which outputs a spectral distribution signal that is connected to said output of said modulator via a splitter; and

a control device with a reference signal setting device which is fed said spectral distribution signal and which generates a control signal which controls an operating point of said modulator.